

Sept 2018

Municipality Generator Interconnection Application

Single Meter Application – Part I

☒ New Application

☐ Revised Application

A single customer interconnecting to a single meter at a single premise makes a new / revised application this date 8/1/2018 to the Municipality of City of Newark to install and operate a generating* facility interconnected with the Municipal's electric utility system.

Section 1. Ownership Type:

☒ Customer Owned and Operated ☐ Customer Leased and Operated ☐ Third Party Owned and Operated

As an electric service customer of the Municipality of City of Newark, I certify, as the interconnection applicant and by signature on this application that the contract arrangement between the generator owner and the generator vendor is for the sale of or lease of generator equipment only. I further certify under penalty of generator disconnect that the contract arrangement between the generator owner and generator vendor does not constitute a Power Purchase Agreement ("PPA") or otherwise involve the direct sale or invoice by the vendor to the customer for electricity generated in kilowatt-hours **Applicant must attach a fully executed contract between the vendor and the applicant. At no time shall the applicant change the contract to a purchase power agreement (PPA) with the vendor or a third party. The Municipal Electric Utility has the right to promulgate rules and regulations and while we make best efforts to support our customers desire for net-metering the Municipal Electric Utility retains the right to decline third party power suppliers within the Municipal Electric Utility service territories.**

Section 2. Applicant Information:

New Construction ☐

Existing Construction ☒

Name: Julie & Michael Wilgen Email: jwilgen1968@gmail.com

Mailing Address: 240 Beverly Road

City: Newark State: DE Zip Code: 19711

Facility Location (if different from above): _____

Telephone (Daytime): Area Code 302 Number 292-1964 (Evening) Area Code _____ Number _____

Facility Age: Carriage House built in 1930 Power Account No. : 020-00001759-01

Section 3. Generator Technical Information

Customer Type: ☒ Residential ☐ Non-Residential ☐ Farm

The purpose of interconnection is to Net Energy Meter ("NEM") ☒ Yes ☐ No
If No, the generator will not be NEM eligible and will be subject to additional tariff requirements.

NEM Applicants Only:

Is Generator under: 25 kW for Residential, 500 kW for Non-Residential, 100 KW for Farm? ☒ Yes ☐ No

Is Generator on a farm and applicant requests a waiver of the 100 kW limit? ☐ Yes ☒ No

Type NEM Qualifying Energy Source: ☒ Solar ☐ Wind ☐ Hydro ☐ Electric Car _____ #

☐ Fuel Cell ☐ Anaerobic digestion of organic material

main house 1954

Generator Equipment and Operation Details (If multiple different products are used please detail each)

Generator Manufacturer:	Longi
Generator Model Name:	(20) LR6-60PB 305w Mono BoB
Generator Model Number:	305
Generator Output (kW):	6.1
Inverter Manufacturer:	SolarEdge
Inverter Model Name:	SE5000H-US
Inverter Model Number:	5000 watts
Inverter Power Rating (AC Watts):	5000 watts
Number of Inverters:	1
Inverter Efficiency %:	99%
Intended Inverter Location:	Carriage House/Garage
System Rated Output (Generator Output x Inverter Efficiency)	4,950
Customer Consumption (2 year average) from Appendix A	20,571
Generator Annual Production (kWh)	6,034

If Generator is Photovoltaic include as well:

Module Power Rating (DC @ STC): Should match Generator Output (kW)	305
Number of Modules:	20
Total Solar Output kW (Modules x Power Rating DC @ STC):	6.1 kW
Array Orientation (degrees): Note the size of each array that has different degrees.	188 degs True
Array Tilt (degrees): Note the size of each array that has different degrees.	40 degrees
Solar Shading Analysis Required (Solar Pathfinder or equivalent accepted): Solar Shading analysis should include readings at all four (4) points of each continuous array and one in the center. Shading analysis will be used by the utility in consideration of NEM benefits.	

Any approved interconnections already in service at this location: ☒ Yes ☐ No

If yes please detail: 4.23 kW DC interconnection on property approved 10/13/2011 by City of Newark

Will a generator disconnect device, accessible to the Municipal Utility, be installed? ☐ Yes ☒ No

If the Generator Owner elects not to install a manual disconnect device accessible to the Municipal Utility, the Generator Owner assumes all risks and consequences when a service meter must be "pulled" to disconnect the generator thereby also interrupting all utility electric service to the Customer site.

Section 4. Generator/Equipment Certification

Generating systems that use inverter technology must be compliant with IEEE 929 and *Underwriters Lab. UL 1741*. Generating systems must be compliant with the Municipality's Power Delivery's Technical Considerations Covering Parallel Operations of Customer Owned Generation. By signing below, the Applicant certifies that the installed generating equipment meets the appropriate preceding requirements and can supply documentation that confirms compliance. The applicant also agrees that if any details about the generator system as detailed in Section 3 change, it is the applicant's sole responsibility to notify the Municipal Utility of those changes by submitting a revised Interconnection Application prior to commencing or completing construction / retrofit. The applicant agrees to wait to receive approval from the Municipal Utility of any revised Interconnection Application before proceeding with construction. Failure to notify the Municipal Utility in advance of system changes prior to submitting the Final As-Built Details could cause approval delays or denial of interconnection if the revised system is not compliant with NEM and/or Municipal Utility requirements.

Section 5. Net Energy Metering

Net Energy Metering is a service to customers which allows customers to generate electricity for their own needs (from an eligible on-site generating facility) and to deliver excess electric into the municipal electric system and then allows the customer to take electric from the municipal electric system when the customer cannot produce the electric required to sustain their own needs.

The customer sited generating system shall be designed to produce no more than 110% of the initial design load. The initial design load shall be the calculated average of the two previous twelve-month periods of actual electric usage at the time of installation of electric generating equipment. For new building construction, the initial design load will equate to the electric consumption of units of similar size and characteristics at the time of installation of energy generating equipment as determined appropriate by the Municipal Electric Utility.

Section 6. Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Part I Interconnection Application is true and correct.

Signed (Applicant): Julie M. Wilgen Date: 7/24/12

Print name: Julie & Michael Wilgen

Call your municipal electric service to find out who should receive this Part I Interconnection Application. Make sure to include all application sections (1 – 8) and Appendix A with new / revised submissions.

Section 7. Preliminary Generator/Equipment Installment Approval / Rejection

The Municipal Utility:



Approves



Does NOT Approve

Part I Interconnection Application for a (system type) SOLAR generator as detailed in this application and located at (installation address) 240 BWWBLY

Signed (Municipal Utility):

Sam Sweeney

Date:

10/16/18

Print Name and Title:

SAM SWEENYER DEPUTY ELECTRIC DIRECTOR

Reason of Not Approving:

Section 8. Internal Notifications

A copy of the approved Application Part I must be sent to the Municipal Building Department.

Yes



A copy of the approved Application Part I must be sent to the Delaware Municipal Electric Corporation ("DEMEC").

Yes



DEMEC
P.O. Box 310
Smyrna, DE 19977

Appendix A

Customer Consumption and Generator Production

Item 1: Customer Consumption. Customer is to provide for existing construction 2 previous 12-month period(s) of actual electrical usage at the time of installation of energy generating equipment. For new construction provide estimated electrical consumption for units of similar size and characteristics at the time of installation of the energy generation equipment.

Month/Year	Year 1 Consumption	Year 2 Consumption
July 2018 / 2017	2228	1985
June 2018 / 2017	1786	1620
May 2018 / 2017	1267	714
April 2018 / 2017	821	542
March 2018 / 2017	2053	1600
Feb. 2018 / 2017	1849	1813
Jan. 2018 / 2017	2904	2911
Dec. 2017 / 2016	2778	2769
Nov. 2017 / 2016	1406	901
Oct 2017 / 2016	1230	827
Sept 2017 / 2016	1743	1466
August 2017 / 2016	2053	1875
Annual Average	22,118 / 12 = 1,843	19,023 / 12 = 1,585
2 Year Average	1,714 kWh / mo avg.	20,571 kWh annual avg.

The municipal utility will verify the above consumption numbers. If the customer provided consumption numbers differ from the utility the applicant may need to provide copies of actual electric bills at the request of the utility to support the information provided in Item 1.

Item 2: Generator Production. Customer is required to provide estimated annual production totals for the proposed generator and a calculation method in sufficient detail so the utility can recreate the estimated annual production totals. Calculation totals and method to be attached to Appendix A.

Item 3: (check one)

☒ I certify that I am applying for net energy metering privileges and that Section 3 system is designed to produce no more than 110% of my facility's expected electric consumption, calculated on the average of the 2 previous 12-month period(s) of actual electrical usage at the time of installation of energy generating equipment.

☐ I certify that I am applying for net metering benefits as a new building construction, that the system is being designed for electrical consumption as estimated at 110% of the consumption of units of similar size and characteristics at the time of installation of the energy generation equipment.

I hereby certify that, to the best of my knowledge, all the information provided in Appendix A is true and correct.

Signed (Applicant):

Julie M. Wilgen

Date:

7/28/18

Print Name: Julie & Michael Wilgen

Municipality Generator Interconnection Application -Short Form

Part II - Final As-Built Details

A single customer interconnecting to a single meter at a single premise provides Final As-Built Details this date 11/19/2018 to the Municipality of City of Newark to install and operate a generating facility interconnected with the Municipal's utility system.

Section 9. Installation Details

Generating System was installed by: ☐ Owner ☒ State Licensed Electrician

Installing Electrician: Dale W. Davis Firm: CMI Solar& Electric, Inc. License No.: T1-4691

Mailing Address: 83A Albe Drive

City: Newark State: DE Zip Code: 19702

Telephone: Area Code: 302 Number: 731-5556

Installation Completion Date: 2/16/2018 Interconnection Date: _____
(System connected but shall not be active/live.
System not approved by Utility at this point.)

Supply certification that the generating system has been installed and inspected in compliance with the local Building/Electrical code of the municipality of City of Newark.

Signed (Inspector): _____ Date: _____
(In lieu of signature of Inspector, a copy of the final inspection certificate may be attached)

Generator Technical Information

The applicant certifies that the system described below is the Final As-Built Design and **does match any revised application submitted by the applicant and approved by the municipality prior to the interconnection date.**

Generator Equipment and Operation Details (If multiple different products are used please detail)

Generator Manufacturer:	Silfab
Generator Model Name:	(20) SLA-M300 Mono BoB
Generator Model Number:	300
Generator Output (kW):	6.0
Inverter Manufacturer:	SolarEdge
Inverter Model Name:	SE5000H-US
Inverter Model Number:	5000 watts
Inverter Power Rating (AC Watts):	5000 watts

Number of Inverters:	1
Inverter Efficiency %:	99%
Intended Inverter Location:	Garage
System Rated Output (Generator Output x Inverter Efficiency)	4,950
If Generator is Photovoltaic include as well:	
Module Power Rating (DC @ STC): Should match Generator Output (kW)	300
Number of Modules:	20
Total Solar Output kW (Modules x Power Rating DC @ STC):	6.0 kW
Array Orientation (degrees): Note size of each array with different degrees.	268 degs True
Array Tilt (degrees): Note size of each array with different degrees.	12 degrees
Required: Completed Generator Installation Pictures Attached: Must show whole generator, inverters, electric permits	

Section 10. Applicant Certifications

I hereby certify that, to the best of my knowledge, all the information provided in the Final As-Built Details is true and correct. I agree to install a Warning Label provided by the Municipality on or near my service meter location. I also agree to submit a new or revised Interconnection Application and comply with all governing permitting requirements before adding to in any way or subtract from in any way the current approved electric generating system; including but not limited to expanding, replacing, or removing all or a portion of the current system, adding a new generator type, and/or replacing in anyway the generator system inverter. I further agree to notify the utility in writing through official certified mail at least 30 days before I sell or transfer ownership of the system to another owner to allow the municipal electric utility to update records and determine if the new owner agrees to the generation and interconnection responsibilities associated with the transfer of ownership. A new property owner, of property that up until the time of sale had an approved Interconnection Agreement in place for net-metering, has 30 days to submit a new Interconnection Agreement for net-metering in his/her name. If the new owner fails to submit an Interconnection Agreement within 30 days of property transfer, certain net-metering transfer rights may be discontinued.

Failure for non-compliance to these certifications will be considered a violation of the net-metering agreement and may result in the disconnection of the electric generator at the discretion of the municipal electric utility. The sale or transfer of the electric generator shall not compromise law.

I further certify and understand that municipal utility review and approval of this application does not constitute an endorsement of actual equipment performance nor does it endorse its benefits or economics.

Signature of Applicant:

Julie M. Wilgen Date: 11/14/18

Print Name: Julie or Michael Wilgen

Call your municipal electric service to find out who should receive this Part II Interconnection Application. Make sure to include all application sections (9 – 12) with final submissions.

Section 11. Final Approval or Non-Approval for Interconnection and System Operation

The Municipal Utility:



Approves



Does NOT Approve

The interconnection of a SOLAR generator as detailed in the Final As-Built Details and located at (installation address) 240 Beverly Rd.

The Municipal Utility has verified the applicant's average electric consumption in Appendix A. ☐ Yes ☐ No

The Municipal Utility has verified at the time of installation that the installed electric generator is designed to produce no more than 110% of the applicant's/customer's average annual electric consumption as calculated in Appendix A. ☒ Yes ☐ No

Signed (Municipal Utility):

Sam Sweeney

Date:

11/19/18

Print Name & Title:

SAM SWEENEY

UTILITY ELECTRIC DIRECTOR

Reason of Not Approving:

Approval to connect to the municipal system indicates only that the minimum requirements for a safe proper interconnection have been satisfied. Such approval does not imply that the Generator Owner's facility meets all federal, state and local standards or regulations.

Section 12. Municipal Internal Notifications

Send Applicant Warning Label for installing on/ near service meter: ☒ Yes

Notify Billing Dept. of Interconnected Generation: ☒ Yes

Notify District Engineering of Interconnected Generation: ☒ Yes

Notify System Protection of Interconnected Generation: ☒ Yes

Notify Municipal Building Department: ☒ Yes

A copy of the approved Part II Final As-Built Details must be sent to the Delaware Municipal Electric Corporation ("DEMEC"). ☒ Yes

DEMEC
P.O. Box 310
Smyrna, DE 19977